

breakout ABSTRACT

Abstract No. 42

TITLE**BIOMONITORING IN ACTION: LEAD, MERCURY, CADMIUM AND PESTICIDE EXPOSURE IN NEW YORK CITY ADULTS****TRACK****Network Content****OBJECTIVES**

Exposure data from biomonitoring yields important information for program planning and policy formation.

Community HANES is an important means by which states and counties can evaluate environmental exposures.

Exposures in New York City to mercury and pesticides differ from that of the nation as a whole.

SUMMARY

Introduction: The 2004 New York City Health and Nutrition Examination Survey (NYC HANES) provided an opportunity to assess exposure to toxic metals – including lead, mercury and cadmium – and pesticides in NYC. Organophosphate and pyrethroid pesticides have been used in disproportionately high amounts in NYC relative to the rest of the state.

Methods: To assess the extent of exposure to toxic metals among NYC adults, metals were analyzed in the blood and urine of a representative sample of 1,811 NYC HANES study participants. To assess exposure to pyrethroid and organophosphate pesticides, urinary metabolites were measured in a randomly selected sub-sample of 387 participants.

Results: This presentation will compare New York City to national population estimates for metals and pesticides. Compared to national levels, mercury in New York City is elevated three-fold, whereas lead and cadmium levels are comparable to national estimates. The NYC Asian population had the highest levels of all three metals when compared to other racial/ethnic groups. Pesticide data are still under analysis, and will be reported in the presentation.

Conclusion: Biomonitoring is a critical component of a robust environmental public health tracking program. Results suggest that NYC is on track with national efforts to control lead exposure. Elevated mercury is most likely from fish consumption, implying a need to educate New Yorkers – with a particular emphasis on the Asian population – about how to get a maximum health benefit by choosing fish wisely. Pesticide data will be discussed in the context of New York City initiatives to reduce unsafe and inappropriate pesticide use by professionals and residents.





Implementing The Tracking Network

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